

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Class H Door**with type designation(s)
SM-H120-TS1

Issued to

Sung Mi Co., Ltd.
Gimhae-si, Gyeongsangnam-do, Republic of Koreais found to comply with
DNV GL offshore standards**Application :****Approved for use as an integrated part of fire retarding division of class H-120.****Maximum size of clear opening: 2600 mm x 3500 mm (w x h).**Issued at **Høvik** on **2019-06-07**This Certificate is valid until **2024-06-06**.for **DNV GL**DNV GL local station: **Gimhae Station**Approval Engineer: **Helge Bjørnarå**

Mårten Schei-Nilsson
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

"SM-H120-TS1",

A double door with one active leaf and one passive door leaf, and a transom leaf situated above them. Door leaf thickness is 120 mm.

All three leaves are constructed from 3,0 mm steel sheets on both sides of an insulating core consisting of 114 mm thick Cerak wool (type: KCC BIO CERAKWOL (1100); density: 96 kg/m³). All leaves are reinforced inside with 6 mm stiffeners.

Each door leaf is fitted with 3 hinges inside one common door frame. This door frame is made of 5 mm thick, profiled steel plates and is bolted to the bulkhead using M10x35 bolts with 250-300 mm spacing. The gap is sealed with a ceramic or rubber packing. The door frame may also be welded to the bulkhead.

A Ø20 mm ceramic fibre frame bumper are fitted around the door leaves. A Ø30 mm ceramic fibre door bumper are fitted around the door leaves.

The active and passive door leaves may be fitted with a 116 mm thick window (type: Contraflam marine H120) in a 2 mm thick metal frame. Window frame is insulated with 3 mm Cerak wool (type: KCC BIO CERAKWOL (1100); density: 96 kg/m³).

For further details, see the drawing listed under Type Approval documentation.

Application/Limitation

Approved for use as an integrated part of fire retarding divisions of class H-120. Installation of the door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Max. clear opening:	2600 mm x 3500 mm (w x h)
Max. size active door:	1458 mm x 2557 mm (w x h)
Max. size passive door:	1354 mm x 2557 mm (w x h)
Max. size transom door:	2754 mm x 1054 mm (w x h)
Max. clear opening of vision panel:	300 mm x 500 mm (w x h)

Any surface materials used have to be approved for smoke and toxicity and low flame spread characteristics (IMO 2010 FTP Code part 2 and 5) when required according to relevant rules.

Any adhesive used, other than the one used during testing, has to be tested for low flame spread characteristics according to IMO 2010 FTP Code part 5.

Each product is to be supplied with its manual for installation and maintenance.

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, September 2018.

Test report No. KOMERI-0402-18T0775 dated 10 July 2018 from KOMERI, Busan, Korea.

Drawing No. SMD-180222-001, Rev.0, dated 22 February 2018 from manufacturer.

Tests carried out

Tested according IMO 2010 FTP Code Part 3 with the hydrocarbon time-temperature curve specified in ISO 834-3.

Marking of product

The product is to be marked with name of manufacturer, type designation and fire-technical rating.



Job Id: **262.1-028732-1**
Certificate No: **TAF000011F**

Periodical assessment

DNV GL's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNVGL-CP-0338, Section 4.